

Appl. No. 09/655,755
Amdt. Dated September 19, 2005
Reply to Office action of May 24, 2005
Attorney Docket No. P12103-US1
EUS/J/P/05-1234

REMARKS/ARGUMENTS

1.) Examiner's Response to Applicant's Prior Arguments

The Examiner states that Applicant's arguments filed on December 28, 2004, were considered but they were "not persuasive," further stating that the rejection of claims 1-4, 6-14 and 16-22 is upheld. The Applicant notes, however, that not only are the Examiner's present claim rejections not final, but they are based on different references. Accordingly, it appears that the Applicant's arguments traversing the Examiner's rejection of claims 1-4, 6-14 and 16-22 as being not anticipated by Gustafsson were, in fact, persuasive. The Applicant, therefore, thanks the Examiner for withdrawing his rejection.

2.) Claim Rejections – 35 U.S.C. §103(a)

The Examiner rejected claims 1-4, 7-8, 10, 13-14, 17-18 and 20 as being unpatentable over Freed (US 5,686,683) in view of Levien (US 5,337,264); claims 5 and 15 over Freed in view of Levien and further in view of Leitch (US 5,202,900); claims 6, 9, 16 and 19 over Freed in view of Levien and further in view of Craven (US 5,548,286); and claims 11-12 and 21-22 over Freed in view of Levien and further in view of Picchi, *et al.* (US 4,547,889). The Applicant traverses the rejections.

In the office action, the Examiner does not expressly show where each of Applicant's claim limitation is disclosed in Freed or Levian, nor does she show how those limitations are taught in the combination claimed by Applicant. Thus, it is difficult for the Applicant to fully understand the basis of the claim rejections. It appears that the Examiner has impermissibly used Applicant's claims as a list to pick and choose from the prior art. Various teachings of the prior art are not properly combined, however, unless there is something in the prior art itself to suggest that those teachings could or should be combined. The Examiner has not done so and, thus, has failed to establish a *prima facie* case of obviousness.

Freed addresses a fundamentally different problem than the claimed invention and, thus, is not an appropriate prior art reference. Applicant's invention is directed to designing a digital filter, *e.g.*, $H(z)$, from a given spectrum characteristic. The filter is

Appl. No. 09/655,755
Amdt. Dated September 19, 2005
Reply to Office action of May 24, 2005
Attorney Docket No. P12103-US1
EUS/J/P/05-1234

applied to a signal in order to produce a desired filtering operation. Mathematically, the Applicant's invention treats the problem of designing a filter, $H(z)$, that produces a desired output, $y(t)$, when applied to a signal, $x(t)$: in other words, $y(t) = H(z)x(t)$. In contrast, Freed is directed to the generation of an artificial signal from a given spectrum characteristic, which mathematically can be expressed as generating a signal $y(t)$ without any input signal; i.e., $y(t) = \text{IFFT}(H(f))$.

The Examiner states that Freed, together with Levien, teaches the steps in claim 1. Claim 1, however, is directed to the design of a digital filter, whereas Freed is directed to designing a signal (i.e., "sound synthesis"). Despite the fundamentally different problem areas addressed by Applicant's invention and Freed, however, some steps are similar. For example, the first two steps of claim 1 ("determining a real-valued discrete-frequency representation of a desired full length filter" and "transforming said real-valued discrete frequency representation into a corresponding discrete-time representation") are similar or identical to processes described by Freed. The third and fourth steps of claim 1, however, are not described by Freed or Levien.

The third and fourth steps of claim 1 are not linked to any overlap-add technique, as suggested by the Examiner. An overlap-add technique is used by frequency domain implementation of filtering operations (or signal generations), as described on page 5, line 18, to page 7, line 27. Claim 1, however, treats the problem of designing the filter used in this filtering operation, not the filtering operation itself. Steps three and four in claim 1 define a procedure of obtaining a filter with the desired properties with respect to length of the filter and phase response, as described on page 9, line 28, to page 10, line 25; the benefits of the filter characteristics is explained on page 10, line 27, to page 11, line 7. Steps three and four of claim 1, however, cannot be implemented via an overlap-add technique and, thus, are not disclosed by the overlap-add techniques of Freed and Levien. Accordingly, claim 1 is not obvious over Freed in view of Levien.

Whereas independent claims 7, 13, and 17 recite limitations analogous to those of claim 1, those claims are also not obvious over Freed in view of Levien. Furthermore, whereas claims 2-6 are dependent from claim 1, claims 8-12 are dependent from claim 7, claims 14-16 are dependent from claim 13, and claims 18-22 are dependent from

Appl. No. 09/655,755
Amdt. Dated September 19, 2005
Reply to Office action of May 24, 2005
Attorney Docket No. P12103-US1
EUS/J/P/05-1234

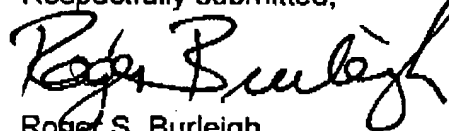
claim 17, and include the limitations of their respective base claims, those claims are also not obvious over Freed in view of Levien.

CONCLUSION

In view of the foregoing remarks, the Applicant believes all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the Examiner withdraw all rejections and issue a Notice of Allowance for claims 1-22.

The Applicant requests a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



Roger S. Burleigh
Registration No. 40,542

Date: September 19, 2005

Ericsson Inc.
6300 Legacy Drive, M/S EVR 1-C-11
Plano, Texas 75024

(972) 583-5799
roger.burleigh@ericsson.com